

REMARKS/ARGUMENTS

This is a full and timely response to the non-final Office Action mailed July 16, 2008. Further examination and reconsideration in view of the foregoing amendments and following remarks is respectfully solicited.

Claims 3, 5, 23, and 29-34 are pending in this application, with claims 3, 29, and 32 being the independent claims. Claim 1 has been amended. No new matter is believed to have been added.

Rejections Under 35 U.S.C. § 102

In this Office Action, claims 3, 5, 23, and 29-34 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Armeniades et al. (U.S. Patent No. 4,841,984, hereinafter "Armeniades I"). This rejection is respectfully traversed because Armeniades I does not disclose all of the elements of the claimed invention.

The claimed invention includes determining initial irrigation fluid pressure and adjusting maximum vacuum setting based on determined irrigation fluid pressure. Applicants submit that Armeniades I does not disclose or suggest determining irrigation fluid pressures.

Armeniades I discloses embodiments (shown in FIGS. 3 and 5) where a suction force is monitored not irrigation fluid (see Col. 5, lines 25-26). In these embodiments, a pressure transducer 65 is mounted in a chamber 65a located near the aspiration inlet 66. Accordingly, there is no pressure sensor for determining the pressure of irrigation fluid introduced into the eye. In fact, the transducer 65 measures a local pressure difference between the diaphragms 67, 68 (see Col. 6, lines 8-9), and these diaphragms 67, 68 are only described in the context of aspiration.

In FIGS. 4 and 6 of Armeniades I, the pressure sensor 50 is mounted in a portion of a channel 42 adjacent to the tip of the instrument 40, which is vented to the atmosphere (see Col. 6, lines 42-45). The sensor 50 is not disposed for determining the pressure of irrigation fluid introduced into the eye. The instrument 40 disclosed by Armeniades I includes an elongated body 41 that is divided into two parallel channels

42, 43 that are separated by an internal wall 49. The channel 43 is an irrigation/aspiration channel, and the sensor 50 is mounted on an opposite side of the wall 48 from the channel 43 and vented to the atmosphere. Thus, the sensor 50 by virtue of its structural position cannot be in a position for determining the pressure of irrigation fluid introduced into the eye as set forth in the claimed invention.

In view of the foregoing discussion, Applicants submit that the claims 3, 5, 23, and 29-34 are patentably distinguished from Armeniades I because Armeniades I does not disclose or suggest determining irrigation fluid pressures. Furthermore, Applicants submit that 3, 5, 23, and 29-34 are further distinguished from Armeniades I because Armeniades I does not disclose adjusting maximum vacuum setting based on the determined irrigation fluid pressure.

Rejections Under 35 U.S.C. § 103

In this Office Action, claims 3, 5, 23, and 29-34 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Armeniades et al. (U.S. Pat. No. 4,548,205, hereinafter Armeniades II) in view of Armeniades et al. (U.S. Pat. No. 4,841,984) as applied to claim 1 above." This rejection is respectfully traversed.

Applicants submit that Armeniades I cannot inherently teach the elements of the claimed invention because the object of the Armeniades I instrument is for enabling suction force to be monitored, not irrigation fluid pressure. In contrast, the present invention provides methods and apparatus for maintaining proper intraocular pressure during surgery by controlling fluid flow to and from the eye by sensing pressure of the irrigation fluid introduced into the eye.

The controller 135 disclosed in Armeniades I is programmed to allow the pump 122 to circulate fluid through the control loop 120 at a predetermined flow rate when signals received from the transducer indicate that the pressure of the intraocular fluid is in a preset range (see Col. 8, beginning at line 50). Thus, this controller is not configured for adjusting irrigation fluid and aspiration fluid rates in response to the determined irrigation fluid pressure as set forth in the claimed invention. Instead, as clearly detailed in Armeniades I (Col. 8), the controller is responsive to the pressure of

intraocular fluid, which is not the same as irrigation fluid pressure. Armeniades also does not disclose or suggest if irrigation fluid pressure is related to intraocular fluid pressure nor how to determine irrigation fluid pressure therefrom, if at all possible.

Like Armeniades I, Armeniades II also does not disclose or suggest determining irrigation fluid pressures. The instruments disclosed in Armeniades II are substantially similar to the instruments disclosed in Armeniades I in that the pressure sensors of Armeniades II also are not configured to, and cannot, sense or determine irrigation fluid pressure.

From the foregoing discussion, Applicants submit that claims 3, 5, 23, and 29-34 are patentably distinguished from the Armeniades I and Armeniades II, either alone or in combination.

Double Patenting

In this Office Action, claims 3, 5, 29-30, and 32-33 are rejected on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over claims 2 and 5 of U.S. Pat. No. 7,018,355, claims 3, 5, 23, and 29-34 are rejected on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over claims 1, 3, and 8 of U.S. Pat. No. 6,899,694, and claims 3, 5, 23, and 29-34 are rejected on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over claims 1-6 of U.S. Pat. No. 7,001,356. This rejection is respectfully traversed.

Applicants submit herewith a terminal disclaimer based on U.S. Pat. No. 7,018,355, U.S. Pat. No. 6,899,694, and U.S. Pat. No. 7,001,356, and a Statement under 37 C.F.R. §3.73(b). Thus, the submitted terminal disclaimer is signed by the assignee in compliance with 37 C.F.R. §3.73(b).

At the time of Applicants' attempt to previously submit a terminal disclaimer, a payment was made on November 28, 2007, in the amount of \$130 for the fee (other than small entity) under 37 C.F.R. §1.20(d). Thus, no additional fee is required.

In view of the submitted terminal disclaimer, Applicants submit that the double patenting objections are overcome.

Conclusion

Based on the above, amended independent claim 3 and independent claims 29 and 32 are patentable over the citations of record. The dependent claims are also submitted to be patentable for the reasons given above with respect to the independent claims and because each recite features which are patentable in its own right. Individual consideration of the dependent claims is respectfully solicited.

The other art of record is also not understood to disclose or suggest the inventive concept of the present invention as defined by the claims.

Hence, Applicants submit that the present application is in condition for allowance. Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-noted Office Action, and a Notice of Allowance are requested.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

If for some reason Applicants have not paid a sufficient fee for this response or the submitted terminal disclaimer, please consider this as authorization to charge Deposit Account No. 502317 for any fee which may be due.

Respectfully submitted,

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